

Claims

1. An operating device for operating gas discharge lamps, having the following features:

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- a regulation device which is suitable for regulating the power of connected gas discharge lamps to a desired power,

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- a setting device that is suitable for limiting a lamp current of connected gas discharge lamps to a limit value,

15 characterized in that the operating device comprises the following features:

- a detection device designed to output a signal to the control device if a limit value setting is too low, in order to put a connected gas discharge lamp into a state in which the lamp assumes the desired power, and

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- a control device that prescribes the limit value for the setting device and increases the limit value if the detection device sends a signal to the control device.

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2. The operating device as claimed in claim 1, characterized in that the control device detects an arc voltage via a measuring device and sets the limit value as a function of the arc voltage by means of a stored characteristic curve.

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3. The operating device as claimed in claim 2, characterized in that the control device activates a further stored characteristic curve upon receiving a signal from the detection device.

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4. The operating device as claimed in claim 1,
characterized in that the detection device includes a
time measuring device which sends a signal to the
control device after expiry of a prescribed time
5 following ignition of a connected gas discharge lamp.

5. The operating device as claimed in claim 1,
characterized in that the detection device detects the
rise in an arc voltage via a measuring device and sends
10 a signal to the control device if the rise is below a
prescribed value.

6. The operating device as claimed in claim 1,
characterized in that after a signal is received from
15 the detection device the control device increases the
limit value by a prescribed value.

7. The operating device as claimed in claim 1,
characterized in that after a signal is received the
20 control device increases the limit value continuously
to a higher limit value.

8. The operating device as claimed in claim 1,
characterized in that functions of the setting device,
25 control device, detection device and regulation device
are executed by at least one microcontroller, these
functions being implemented at least partially by a
software program.

30 9. A method for operating gas discharge lamps that
comprises the following steps:

- setting after ignition of the gas discharge
lamp a warm-up lamp current that is selected to
35 be so low that electrodes of a connected gas
discharge lamp are not damaged;

- detecting whether the set warm-up lamp current puts the gas discharge lamp into a state in which the gas discharge lamp assumes the desired power; and

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- raising the warm-up lamp current in the case when it is detected that the set warm-up lamp current does not suffice to put the gas discharge lamp into a state in which it assumes the desired power.

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10. The method as claimed in claim 9, characterized in that the warm-up lamp current is set as a function of an arc voltage, this dependence being adopted from a stored characteristic curve.

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11. The method as claimed in claim 9, characterized in that an increase in the warm-up lamp current is achieved by switching over to a further stored characteristic curve.

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